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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 1

of 2

**Complete if Known**

Application Number	10/800,018
Filing Date	March 15, 2004
First Named Inventor	William JUDY
Group Art Unit	--
Examiner Name	--
Attorney Docket Number	JUDY=3

**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
NN	AA	US-3,340,867	September 12, 1987	KUBICEK et al.	
	AB	US-3,835,840	September 17, 1974	MOUNT	
	AC	US-4,328,539	April 27, 1982	OBERMAJER	
	AD	US-4,450,527	May 22, 1984	SRAMEK	
	AE	US-4,582,843	January 7, 1986	DJORDJEVICH et al.	
	AF	US-4,807,638	February 28, 1989	SRAMEK	
	AG	US-4,905,705	March 6, 1990	KIZAKEVICH et al.	
	AH	US-5,025,784	June 25, 1991	SHAO et al.	
	AI	US-5,109,863 A	May 5, 1992	SEMMLOW et al.	
	AJ	US-5,178,154 A	January 12, 1993	ACKMANN et al.	
	AK	US-5,309,917 A	May 10, 1994	WANG et al.	
	AL	US-5,423,326 A	June 13, 1995	WANG et al.	
	AM	US-5,433,073 A	August 22, 1995	WANG et al.	
	AN	US-5,578,291 A	November 26, 1996	PORTER	
	AO	US-5,617,889 A	April 8, 1997	AUSTIN et al.	
	AP	US-5,824,029 A	October 20, 1998	WEIJAND et al.	
	AQ	US-6,048,319 A	April 11, 2000	HUDGINS et al.	
NN	AR	US-Re. 30,101	September 25, 1979	KUBICEK et al.	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Number Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
	AS	DE 2,620,265	09-13-1977	SIEMENS AG		
NN	AT	EP 0 575 984 A2	12-29-1993	N.I. MEDICAL LTD		
	AU	EP 0 666 488 B1	08-09-1995	KALINOSKI et al.		
	AV	WO 89/01312 A1	02-23-1989	BOMED MEDICAL MANUFACTURING, LTD		
	AW	WO 92/22239 A1	12-23-1992	FLORIDA ALT. UNIV. RESEARCH CORP.		
	AX	WO 97/11638 A2	04-03-1997	A.J. VAN LIEBERGEN HOLDING BV et al.		
	AY	WO 97/37591 A1	10-16-1997	RHEOGRAPHIC PTE LTD. et al		
	AZ	WO 98/23211 A1	04-06-1998	DIASONICS ISRAEL LTD.		
NN	BA	WO 98/53737 A1	12-03-1998	TSOGLIN et al.		

Examiner  
Signature

/Navin Natnithithadha/ (04/26/2007)

Date  
Considered

04/26/2007

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Sheet	2	of	2		

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published		T <sup>2</sup>
NN	BB	APPEL, Paul, et al, "Evaluation Of A Continuous, On-Line Real-Time Non-Invasive Cardiac Output And Ejection Fraction Measurement By Electrical Bioimpedance In Critically Ill Patients", <i>Critical Care Medicine</i> , (April 1987), Abstract.		
	BC	CAPAN, Levon, et al., "Measurement Of Ejection Fraction By Bioimpedance Method", <i>Critical Care Medicine</i> , (April 1987), Abstract.		
	BD	FEIGENBAUM, Harvey, "Basic Concepts of Stress Echocardiography", <i>Echocardiography</i> , (1994), Abstract and preface.		
	BE	GOOVAERTS et al, "High Frequency Impedance Cardiography", <i>IX International Conference on electrical bio-impedance</i> , Heidelberg, Germany Sept. 26-30, 1995; (September 1995), p.26-30		
	BF	JENSEN, L., et al, "Issues in Cardiovascular Care", <i>Heart &amp; Lung The Journal of Critical Care</i> , Vol. 24, No. 3, (May/June 1995); pp. 183-193.		
	BG	NAGEL, J.H., et al, "New Signal Processing Techniques for Improved Precision of Noninvasive Impedance Cardiography", <i>Annals of Biomedical Engineering</i> , Vol. 17, (1989); pp. 517-534.		
	BH	PATTERSON, R.P., et al., "Mapping The Cardiac Impedance Signal On The Thoracic Surface", <i>Medical &amp; Biological Engineering &amp; Computing</i> , (28, May 1990); pp. 212-216.		
	BI	RAAIJMAKERS, E., et al., "A Meta-Analysis Of Three Decades Of Validating Thoracic Impedance Cardiography", <i>Critical Care Med.</i> , (1999), Vol. 27, No. 6; pp. 1203-1213.		
	BJ	RAAIJMAKERS, E., et al., "The Inaccuracy of Kubicek's One-Cylinder Model in Thoracic Impedance Cardiography", <i>IEEE Transactions on biomedical Engineering</i> , vol. 44, no. 1, (January 1997); pp 70-76.		
	BK	RAAIJMAKERS, E., et al., "Thoracic Geometry And Its Relation To Electrical Current Distribution: Consequences For Electrode Placement In Electrical Impedance Cardiography", <i>Medical &amp; Biological Engineering &amp; Computing</i> , vol. 36, (September 1998); pp. 592-597.		
	BL	SAKAMOTO, K., et al., "Problems Of Impedance Cardiography", <i>Medical &amp; Biological Engineering &amp; Computing</i> , vol. 17, (November 1979); 697-709.		
	BM	SHOEMAKER, William, et al., "Multicomponent Noninvasive Physiologic Monitoring Of Circulatory Function", <i>Critical Care Medicine</i> , Vol. 16, No. 5, (May 1988); pp. 482-490.		
↓	BN	SPINALE et al., "Relationship Between Bioimpedance, Thermolulution And Ventriculographic Measurements In Experimental Congestive Heart Failure", <i>Cardiovascular Research</i> , vol. 24, (1990); pp. 423-429.		
NN	BO	WEISSLER, Arnold, "Medical Intelligence", <i>The New England Journal of Medicine</i> , Vol. 296, No. 6, (February 10, 1977); pp. 321-324.		

Examiner Signature	/Navin Natnithithadha/ (04/26/2007)	Date Considered	04/26/2007
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